CCO 3565.1
12/03
10 Feb 00

COMBAT CENTER ORDER 3565.1

From: Commanding General
To: Distribution List

Subj: HAZARDS OF ELECTROMAGNETIC RADIATION EMISSIONS CONTROL (EMCON) BILL

Ref: (a) NAVSEA OP 3565/NAVAIR 16-1-529/NAVELEX 0967-LP-6010 Volume I, Part One
(b) NAVSEA OP 3565/NAVAIR 16-1-529/NAVELEX 0967-LP-6010 Volume II, Part One
(c) NAVSURFWARCEN Dahlgren, HERO Survey of May 1997

Encl: (1) HERO Condition and Action Required
(2) HERO Unsafe/Susceptible Ordnance
(3) Communication and Radar Transmitters
(4) Zone Maps
(5) Definition of Terms

1. Purpose. The purpose of this Order is to publish standard procedures for setting and maintaining HERO EMCON. Terms and abbreviations in this Order are defined in enclosure (5).

2. Background. This Order publishes control procedures of the electromagnetic environment (EME) at MCAGCC, 29 Palms, CA. References (a) and (b) state that electromagnetic radiation (EMR or RF) may create a hazard to ordnance systems containing sensitive electro-explosive devices which can result in degradation of these devices as well as premature device actuation causing propellant ignition and/or warhead detonation. Reference (c) reports that even though there are HERO UNSAFE ordnance aboard MCAGCC, antenna placement and/or the relatively low operating power is such that the distance to ordnance storage, handling, loading and arming locations, or transportation routes, preclude the need for permanent RF emission control procedures. Therefore, the primary focus of this Order is EMCON procedures for mobile equipment (stationary, vehicular and aircraft) that may affect personnel working around RF transmitters, refueling operations, and other HERO sensitive ordnance.

3. Information. Operation or Ordnance Officers, as appropriate, will set the applicable HERO condition whenever HERO Susceptible Ordnance is to be transported, handled, or loaded/offloaded. The Operations/Ordnance Officer shall set the appropriate HERO condition in accordance with enclosures (1) through (4) and as follows:

a. The Operations/Ordnance Officer shall set the applicable HERO condition whenever there are inbound transient aircraft or vehicles with HERO Susceptible, HERO Unreliable, or HERO Unsafe Ordnance aboard the Combat Center.

b. All units required to take action under the various HERO conditions shall report to the Operations/Ordnance Officer when such action has been completed.

c. Loading/offloading and transporting team leaders shall not commence operations until notified by the Operations/Ordnance Officer that the applicable HERO condition has been set.

d. Tenant activities concerned should issue directives applicable to their particular aircraft, equipment, and ready service ammunition handling procedures, as necessary.

e. Visiting or transient aircraft conducting ordnance evolutions shall receive a briefing from the Expeditionary Air Field (EAF) Operations/Ordnance Officer concerning the HERO restriction at the EAF located aboard MCAGCC.

4. Action. Enclosures (1) through (4) provide information on the conditions requiring EMCON and the procedures to be followed in establishing such control.

a. MCAGCC Communication and Data Directorate

(1) Shall be the Commanding Officer's primary and direct representative for all matters concerning EMCON.

(2) Shall manage the EMCON program requirements as delineated in references (a) through (c) and MilStd-1385B.

(3) Shall request and ensure that all HERO Surveys are conducted in accordance with references (a), (b) and MilStd-1385B.

(4) Shall be the prime coordinator for EMCON matters aboard MCAGCC.

(5) Shall be the MCAGCC point of contact for information concerning all transmitters at the EAF as they apply to EMCON.

(6) Shall conduct EMCOM safety training and briefings.

(7) Will ensure RADHAZ caution labels state separation distances in enclosure (3) of this Order or chapter 2 of reference (a) for HERO Unsafe and HERO Susceptible for all mobile and portable transmitters.

(8) Ensure that radios installed in ordnance handling vehicles maintain the minimum 10-foot antenna-to-ordnance separation distance required for HERO SAFE ORDNANCE (see chapter 5, paragraph 5-4.4 of reference (a)).

(9) Designate a point of contact to maintain all station and tenant command information concerning ordnance, transmitter, and inventory locations and operation, and to coordinate MCAGCC's HERO program. The liaison should institute procedures to control aircraft, mobile, and portable communications (including amateur and CB transmitters) that could impact ordnance operations and transportation. Additionally, the liaison should ensure that data on future installations of transmitters and antenna systems are submitted for HERO analysis in accordance with reference (c).

5. In order to simplify the application of HERO EMCON, MCAGCC has been divided into the following zones:

a. Zone 1 - Includes the main camp ordnance transportation route from the main gate following Adobe Road and Del Valle Road to Fifth Street, and all housing areas.

b. Zone 2 - Includes the main camp ordnance transportation route from Fifth Street following Del Valle Road to Rifle Range Road.

c. Zone 3 - Includes the arm/dearm areas, RSLs, fixed-wing parking area, and rotary-wing parking areas.

d. Zone 4 - Includes the FASP, Camp Wilson, ordnance transportation route north of the EAF on Phillips Road (north fork), and the AIP and transportation route south of EAF on Phillips Road (south fork).

e. Zone 5 - Includes all geographic areas of the CMA and ordnance transportation routes on Del Valle and Phillips Roads between Rifle Range Road and the Phillips Road split (north/south forks).

f. Zone 6 - All other geographic areas of MCAGCC Twentynine Palms, which include the Rifle Range, FASP, ordnance impact ranges, EOD "burn pit" and ground/assault training areas from Gate 6 to the magazine assembly/handling sites.

6. Reserve Applicability. This Order is applicable to the Marine Corps Reserve.

//signed//
D. T. LENNOX
Chief of Staff

DISTRIBUTION: A-1

HERO Condition and Action Required

1. HERO. HERO is the unintentional actuation of unprotected electro-explosive devices or other electrically initiated ordnance when exposed to electromagnetic fields (EMF). The probability for initiation varies based upon the frequency of the transmitter, radiation strength and the distance from the source. Reference (a) classifies ordnance in four categories:

a. HERO SAFE

b. HERO UNSAFE

c. HERO SUSCEPTIBLE

d. HERO UNRELIABLE

2. HERO UNSAFE ORDNANCE

a. HERO Unsafe Ordnance should not be exposed where unknown or possibly excessive EMEs exist. Reference (a) states that certain procedures can cause HERO Safe Ordnance to become HERO Unsafe. Also, ordnance untested for HERO is considered HERO Unsafe unless otherwise categorized by the Naval Ordnance Center.

b. Additionally, in the unlikely event that an ordnance accident occurs, the ordnance must be considered HERO Unsafe, and EMCON is required for units responding to the scene with radio equipment. Calculations indicate that the combined effect of multiple and portable (hand-held) VHF (132-174 MHz) radio transmitter emissions could pose a threat to HERO Unsafe Ordnance. Emergency response units must maintain a minimum separation distance of 150 feet from the accident site if using 50 watt VHF radios; similarly, a minimum separation distance of 50 feet must be maintained when using 5 watt VHF portable (hand-held) radios.

c. Transportation of HERO Safe ordnance is permissible in vehicles equipped with cellular phones.

d. Tenant activities need not issue separate correspondence unless they have procedures requiring such.

3. PERSONNEL

a. Personnel working with electromagnetic producing equipment shall become familiar with references (a) through (c). At a minimum, the following precautions shall be taken:

(1) Personnel should not look directly at an antenna.

(2) Except under test criteria, feed horns, open ends of wave guides or other RF transmitting devices should not be tampered with while transmitting.

(3) Do not direct RF transmitters toward other personnel.

(4) All transmitting devices should have placards stating: "Do not use within (specified distance) feet of ordnance.

ENCLOSURE (1)

(5) Personnel shall observe "IRF Hazard" warning signs.

4. ORDNANCE. Personnel engaged in ordnance operations shall become familiar with references (a) through (c). At a minimum, the following precautions shall be taken:

a. Set the proper HERO condition prior to any ordnance operation.

b. Ensure all ordnance items remain properly packaged until use.

c. Transport all HERO Unsafe and HERO Unreliable ordnance in closed metal containers.

5. REFUELING OPERATIONS. Personnel engaged in fueling operations shall become familiar with references (a) through (c). At a minimum, the following precautions shall be taken:

a. Do not energize transmitters during fueling operations.

b. Make all static wire and grounding connections prior to fueling operations. Detach only after fuel hose disconnect occurs.

6. HERO CONDITION ONE PROCEDURES ZONES 1,5 and 6 WARNING. Maintain the HERO Unsafe Ordnance separation distances for mobile and hand-held/portable transmitters as listed in Enclosure (3) of this Order or Chapter 2 of reference (a). When emergency response units arrive at the scene of an ordnance accident and 3 radios are in use, maintain a minimum separation distance of 150 feet between VHF mobile radios and the HERO Unsafe Ordnance, and 50 feet between VHF portable radios and the HERO Unsafe Ordnance. Silence all other radios.

a. HERO CONDITION ONE. Shall be set by the Operations/Ordnance Officer prior to granting landing clearance to any aircraft carrying external or internal ordnance and vehicles which contain electro-explosive devices (EED)of unknown HERO characteristics or external ordnance known to be HERO Unsafe, or HERO Susceptible.

b. The Operations/Ordnance Officer shall indicate the setting of HERO Condition One by passing the, "Set HERO Condition One" for (aircraft type or vehicle) to be parked at (the location in zones 1, 5, and 6) as follows:

(1) Notify the MCAGCC's Communication and Data Directorate and Command Duty Officer to "Set HERO Condition One" and notify all duty personnel that MCAGCC is in HERO Conditions One, and silence all aircraft and radar. Transmitters must operate HF at (2-30 MHZ).

(2) Notify maintenance crew not to conduct maintenance or operational checks which could cause aircraft transmitter to radiate; however, transmitter may operate into dummy loads.

(3) Maintain the HERO Unsafe Ordnance separation distance for U.S Marine Corps (USMC) tactical communications equipment, mobile (including communications and radar transportable shelters), and portable transmitter as listed in the HERO report (Appendix A).

(4) When emergency personnel respond to an ordnance incident, maintain a minimum separation distance of 150 feet between HERO Unsafe Ordnance and a maximum of 50 watt VHF mobile radios, and 50 feet between HERO Unsafe Ordnance and a maximum of 5 watt VHF portable radios.

(5) Ensure operating units coordinate with BEARMAT and EAF operations on approach and departure routes to ensure aircraft do not over fly the high-power HF and radar installations.

c. Securing. The on-scene Operations/Ordnance/EOD Officer will determine when HERO Condition One may be secured. This should only occur when HERO Susceptible/Unreliable/Unsafe Ordnance has been made HERO Safe.

7. HERO CONDITIONS TWO AND ACTION REQUIRED ZONE 2 WARNING. Maintain the HERO Unsafe Ordnance separation distances for mobile and hand-held/portable transmitters as listed in Enclosure (3) of this Order or Chapter 2 of reference (a). When emergency response units arrive at the scene of an ordnance accident and three radios are in use, maintain a minimum separation distance of 150 feet between VHF mobile radios and the HERO Unsafe Ordnance, and 50 feet between VHF portable radios and the HERO Unsafe Ordnance. Silence all other radios.

a. HERO CONDITION TWO. HERO Condition Two will be set by the Operations/Ordnance Officer prior to permitting any of the following operations:

(1) Loading/offloading of any aircraft or vehicle carrying externally any ordnance known to be HERO SAFE when racked to the aircraft or loaded on vehicle but HERO Unsafe, HERO Unreliable, or HERO Susceptible during handling.

(2) Loading/offloading of any aircraft or vehicle carrying internally any ordnance (including ordnance cargo) which contains electro-explosive devices (EED) of unknown HERO characteristics or any ordnance known to be HERO Unsafe, HERO Unreliable, or HERO Susceptible.

b. The Operations/Ordnance Officer shall initiate the setting of HERO Condition Two by passing the word, "Set HERO Condition Two for (aircraft type and loaded vehicle) at (location in Zone 2)" as follows:

(1) Notify MCAGCC Communication and Data Directorate and MAGTF Communication Officers or appropriate representatives and pass the word to maintain the HERO Unsafe Ordnance separation distance for USMC tactical communications equipment, transportable shelters, and mobile and portable transmitters as listed in enclosure (3) Order and chapter 2 of reference (a).

(2) Communication and Data Directorate will apply the following procedures:

(a) Silence all HF (2-30 MHz) transmitters at the Marine Corps Communications Electronic School and Building 2054.

(b) Air-search radars:

Bldg. 1839	AN/TPS-63B	Silence
Bldg. 1957	AN/TPS-59(V)1	Silence

c. Securing. The on-scene Operations/Ordnance/EOD Officer will determine when HERO Condition Two may be secured. This will be as soon as the HERO Susceptible/ Unreliable/Unsafe Ordnance has been made HERO Safe.

NOTE: EMCON for these radars may be avoided by "sectoring" the transmitters such that the ordnance transportation route (Del Valle Road) is in a non-radiate area.

8. HERO CONDITION THREE PROCEDURES ZONE 3 WARNING. When emergency response units arrive at the scene of an ordnance accident and three radios are in use, maintain a minimum separation distance of 150 feet between VHF mobile radios and the HERO Unsafe Ordnance, and 50 feet between VHF portable radios and the HERO Unsafe Ordnance. Silence all other radios.

a. HERO CONDITION THREE. Shall be set by the Operations/Ordnance Officer, or other competent authority, for transporting HERO Susceptible Ordnance.

(1) The Operations/Ordnance Officer shall initiate the setting of HERO Condition Three by passing the word, "Set HERO Condition Three for transporting ordnance".

(2) The Operations/Ordnance Officer shall ensure units maintain the HERO Unsafe Ordnance separation distances for USMC tactical communication equipment, transportable shelters, aircraft, and mobile and portable transmitters as listed in enclosure (3) of this order and chapter 2 of reference (a).

(a) Ensure that all HERO Unsafe Ordnance is transported and stored in sealed, all metal containers.

(b) Post RADHAZ Advisory signs at the entrances to all landing zone areas.

b. Ensure when emergency personnel respond to an ordnance incident, maintain a minimum separation distance of 150 feet between HERO Unsafe Ordnance and maximum of 50 watt VHF mobile radios, and 50 feet between HERO Unsafe Ordnance and a maximum of 5 watt VHF portable radios.

c. Securing. The on-scene Operations/Ordnance/EOD Officer will determine when HERO Condition Three may be secured. This will be as soon as the HERO Susceptible/ Unreliable/Unsafe Ordnance has been made HERO Safe.

9. HERO CONDITION 4 ZONE 4 WARNING. When emergency response units arrive at the scene of an ordnance accident and three radios are in use, maintain a minimum separation distance of 150 feet between VHF mobile radios and the HERO Unsafe Ordnance, and 50 feet between VHF portable radios and the HERO Unsafe Ordnance. Silence all other radios. HERO Condition Four shall be set by the Operations/ Ordnance Officer prior to permitting any of the following operations:

a. Prior to the exposure of HERO Unsafe Ordnance being transporting in Zone 4.

b. Silence all HF (2-30 MHz) transmitters at Camp Wilson when within 1500 feet of transportation routes.

c. Maintain the HERO Unsafe Ordnance separation distances for aircraft, mobile, and hand-held/portable transmitters as listed in enclosure (3) of this Order or Chapter 2 of reference (a).

10. HERO CONDITION 5 ALL ZONES WARNING. When emergency response units arrive at the scene of an ordnance accident and 3 radios are in use, maintain a minimum separation distance of 150 feet between VHF mobile radios and the HERO Unsafe Ordnance, and 50 feet between VHF portable radios and the HERO Unsafe Ordnance. Silence all other radios. HERO Condition Five shall be set by the EOD/Operations/ Ordnance Officer prior to permitting any of the following operations:

a. Prior to any evolution where the possibility of exposure of HERO SUSCEPTIBLE ORDNANCE is located.

b. Ensure the HERO SUSCEPTIBLE ORDNANCE separation distances for aircraft, mobile, and hand-held/portable transmitters is maintained as listed in enclosure (3) of this Order or Chapter 2 of reference (a).

HERO Unsafe/Susceptible Ordnance

NALC	CLASS	NOMENCLATURE	HERO STATUS
A651	Q	CARTRIDGE, 20MM A/C, TP-T M220, F/GUNS M39, M61	SUSCEPTIBLE
A665	Q	CARTRIDGE 20 MM A/C, LINKED, 4HEI-M56A3, HEI-T M242, W/M14A2 LINK F/GUN M61, M197	SUSCEPTIBLE
A678	Q	CARTRIDGE, 20 MM A/C, TP, PGU-27/B	SUSCEPTIBLE
A679	Q	CARTRIDGE, 20MM A/C, TP-T, PGU-30/B	SUSCEPTIBLE
A891	Q	CARTRIDGE, 20 MM A/C, TP, M55A2	SUSCEPTIBLE
A896	Q	CARTRIDGE, 20 MM A/C, LINKED 4 TP, M55A2, 1TP-T XM220E1 W/M14A1 LINK, F/GUN M61, M197	SUSCEPTIBLE
B610	L	LAUNCHER AND CARTRIDGE, CHEMICAL AGENT, E8	UNSAFE
C512	L	CARTRIDGE, 105MM SMOKE WP-T, M416, F/GUN M68	SUSCEPTIBLE
C784	L	CARTRIDGE, 120MM, TP-T, M831	SUSCEPTIBLE
C785	L	CARTRIDGE, 120MM, TPCSDS-T, M865	SUSCEPTIBLE
C787	L	CARTRIDGE, 120MM, HEAT-MP-T, M830	SUSCEPTIBLE
C868	L	CARTRIDGE, 81 MM, HE, COMP B, M821 W/FZ MULTI-OPTION M734	SUSCEPTIBLE
C995	L	LAUNCHER AND CARTRIDGE 84 MM, M136 (AT4)	SUSCEPTIBLE
D510	L	PROJECTILE, 155 MM, HE, GUIDED, {COPPERHEAD} M712, W/M740 PIBD FZ	SUSCEPTIBLE
FW92	A	COMPUTER CONTROL GROUP, MAU-169A/B USED W/GBU-10, 12, 16, AND 17 LASER GUIDED BOMBS	SUSCEPTIBLE
G815	L	GRENADE, RED PHOSPHORUS, SMOKE, SCREENING, UK L8A1	SUSCEPTIBLE
G826	L	GRENADE, SMOKE, IR SCREENING, M76	SUSCEPTIBLE
HX04	L	ROCKET, PRACTICE, ASSAULT, ENCASED, {SMAW} 83MM, MK 4 MOD 0, W/ROCKET MK 2 MOD 0, {INERT WHD}	SUSCEPTIBLE
H104	L	ROCKET POD, 298 MM TACTICAL M26 FOR USE IN MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	SUSCEPTIBLE
H546	J	ROCKET MOTOR CLUSTER, 5.00 INCH, 4 MOTORS MK 16 MODS/LAU-10/A	SUSCEPTIBLE

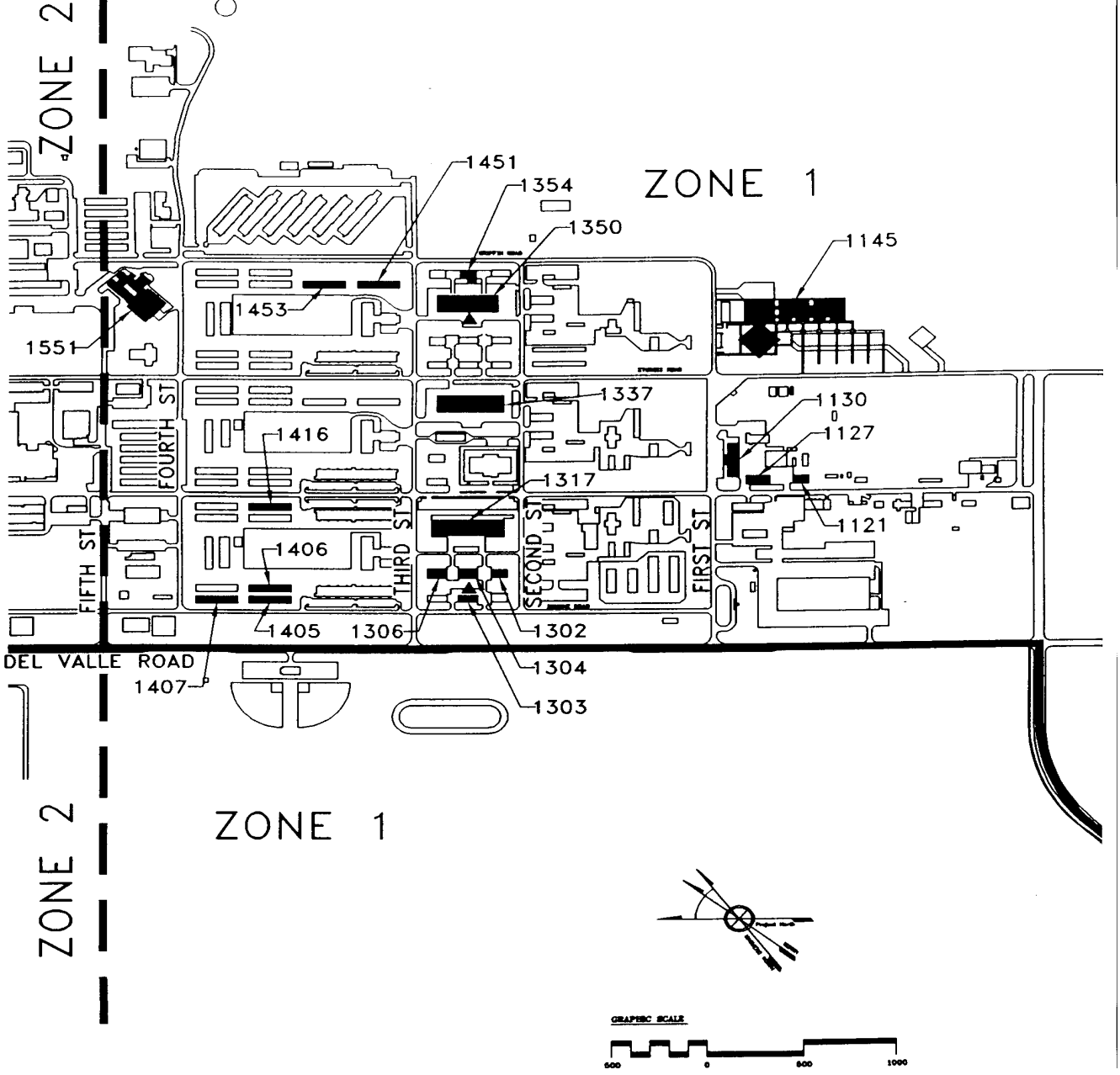
ENCLOSURE (2)

NALC	CLASS	NOMENCLATURE	HERO STATUS
J143	L	ROCKET MOTOR, 5 INCH, MK 22 MOD 2 F/ DEMOLITION LINEAR CHG M58A1, M68A1 MODIFIED ALSO MK 22 MOD 3 AND MK 22 MOD 4	UNSAFE
J271	J	ROCKET MOTOR, 5.00 INCH, MK 71 MOD 1, WAFFAR, W/PROP GRAIN MK 88 MOD 0, W/IGNITER MK 282 MOD 0	SUSCEPTIBLE
K143	L	MINE, ANTI-PERS, M18A1, NONBOUNDING, NONMETALIC	UNSAFE
K869	L	SMOKE POT, FLOATING, SGF2, AN-M7 SERIES	SUSCEPTIBLE
K886	L	FUZE, SMOKE POT, ELECTRICAL, M209, F/USE WITH K869	UNSAFE
L596	L	SIMULATOR, FLASH, ARTILLERY, M110, W/IGNITER	UNSAFE
L602	L	SIMULATOR, FLASH, ARTILLARY, M21	UNSAFE
L709	L	SIMULATOR, TARGET HIT, M25 W/ELECTRIC IGNITER M79	UNSAFE
L720	L	SIMULATOR, TARGET KILL, M26 W/ELECTRIC MATCH M79	UNSAFE
MD65	H	CARTRIDGE IMPULSE, CCU-45/B	SUSCEPTIBLE
MD66	H	CARTRIDGE, IMPULSE CCU-44/B	SUSCEPTIBLE
MF29	H	CARTRIDGE, IMPULSE CCU-63/B	SUSCEPTIBLE
MF60	H	CARTRIDGE, IMPULSE, CCU-41/B	SUSCEPTIBLE
ML25	L	CHARGE, DEMOLITION, LINEAR, HE, COMP C4, M59, W/FZ ELECT M1134A1	SUSCEPTIBLE
M130	L	CAP, BLASTING, SPECIAL, ELECTRIC, M6	SUSCEPTIBLE
M174	L	CARTRIDGE, IMPULSE, ELECT INITIATED, NAVORD DWG NO.LD416875, .50 CAL FOR EOD USE	SUSCEPTIBLE
M598	L	CRYPTOGRAPHIC EQUIPMENT DESTROYER, INCENDIARY, M1 SERIES TH1 AND TH4	UNSAFE
M913	L	CHARGE, DEMOLITION, HE, LINEAR M58A1 MODIFIED, W/FUZE AND HARNESS CONNECTOR	SUSCEPTIBLE
N288	L	FUZE, MULTI-OPTION, M734	SUSCEPTIBLE
N402	L	FUZE, PROXIMITY, M532/XM532 SERIES	UNSAFE
PB93	L	GUIDED MISSILE, SURFACE ATTACK, BGM-71D	SUSCEPTIBLE

NALC	CLASS	NOMENCLATURE	HERO STATUS
PB97	L	GUIDED MISSILE, SURFACE ATTACK, BGM-71A-3, TOW,(INCLUDES MISSILE ORDNANCE INHIBIT CIRCUIT)	SUSCEPTIBLE
PB99	Army	GUIDED MISSILE, TOW BTM-71A-3, EXTENDED RANGE, PRACTICE	SUSCEPTIBLE
PD23	V	GUIDED MISSILE, TRAINING, ATM-9H-4, W/WINGS AND FINS	SUSCEPTIBLE
PE63	V	GUIDED MISSILE, PRACTICE, TOW, BTM-71A-2A	SUSCEPTIBLE
PL23	L	GUIDED MISSILE AND LAUNCHER, SURFACE ATTACK, M222	SUSCEPTIBLE
PM80	L	GUIDED MISSILE AND LAUNCHER, SURFACE ATTACK, M222	SUSCEPTIBLE

COMMUNICATION AND RADAR TRANSMITTERS

Antenna Type	Antenna Gain (dBi)	Transmitter Frequency (MHz)	Transmitter Max. Avg. Power (Watts)	Transmitter Type	Separation Distance (feet/meters) HERO UNSAFE ORDNANCE	HERO SUSCEPTIBLE ORDNANCE
Main Camp Zone 1						
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Dipole	0.0	416.9/467.8	2	PAC 400	10/3	10/3
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Dipole	0.0	416.9/467.8	2	PAC 400	10/3	10/3
Collinear	8.0	136-174	50	Mot D43KX (Spectra)	157/48	34/10
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Log Periodic	12.0	902-928	0.25	AirLan Wireless Modem	10/3	10/3
Whip	2.1	2-30	400	AN/MRC-138	2292/689	229/69
Log Periodic	12.0	902-928	0.25	AirLan Wireless Modem	10/3	10/3
Collinear	8.0	136-174	50	Mot D43KX (Spectra)	157/48	34/10
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Log Periodic	12.0	902-928	0.25	AirLan Wireless Modem	10/3	10/3
Log Periodic	12.0	902-928	0.25	AirLan Wireless Modem	10/3	10/3
Dipole	2.1	2-30	400	AN/MRC-138	2292/698	229/69
Whip	3.0	403-433	40	Mot L44ZX (Spectra)	26/8	10/3
Log Periodic	12.0	902-928	0.25	AirLan Wireless Modem	10/3	10/3
Log Periodic	12.0	902-928	0.25	AirLan Wireless Modem	10/3	10/3
Collinear	8.0	136-174	50	Mot D43KX (Spectra)	157/48	34/10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ZONE 1
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1551
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FOURTH ST
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DEL VALLE ROAD
ZONE 2
ZONE 1
GRAPHIC SCALE
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Definition of Terms

AASP	Aviation Ammunition Supply Point
amp.	Amplifier
AN/	Army/Navy
ATC	Air Traffic Control
Bldg.	Building
C^3	Command, Control, and Coordination
CAD	Cartridge-Actuated Device
CAX	Combined Arms Exercises
CMA	Center Magazine Area
dB(I)	Decibel (isotropic)
DOD	Department of Defense
DSN	Defense Switch Network
EAF	Expeditionary Airfield
EED	Electro Explosive Device
EMCON	Emission Control
EME	Electromagnetic Environment
EOD	Explosive Ordnance Disposal
FASP	Field Ammunition Supply Point
ft	Feet
GASP	Ground Ammunition Supply Point
GE	General Electric
HAR	Harris Corporation
HERO	Hazards of Electromagnetic Radiation to Ordnance
HF	High Frequency
ICOM	ICOM Corporation
KEN	Kenwood Communications, Inc.
LZ	Landing Zone
m	Meters
MARS	Military Affiliate Radio System
max	Maximum
MCAGCC	Marine Corps Air-Ground Combat Center
MCCES	Marine Corps Communication-Electronics School
MHz	Megahertz
MIL-STD	Military Standard
MK	Mark
mm	Millimeters
MOD	Modification/Model
MOT	Motorola, Inc.
mW/cm^2	Milliwatts per centimeter squared
N/A	Not Available/Applicable
NALC	Navy Ammunition Logistic Code
NAVAIR	Naval Air Systems Command
NAVELEX	Naval Electronic Systems Command (SPAWAR)
NAVFACENGCOM	Naval Facilities Engineering Command
NAVSEA	Naval Sea Systems Command
NOC	Naval Ordnance Center
NSN	National Stock Number
NSWCDD	Naval Surface Warfare Center, Dahlgren Division